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S/N 09/810,005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Zhongze Wang et al.

Examiner: Samuel A. Gebremariam

Serial No.: 09/810,005

Group Art Unit: 2811

Filed: March 16, 2001

Docket: 303.747US1

Title: METHOD TO REDUCE TRANSISTOR CHANNEL LENGTH USING SDOX

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Commissioner for Patents  
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on May 23, 2002. Please amend the above-identified patent application as follows.

**IN THE SPECIFICATION**

Please make the paragraph substitutions indicated in the appendix entitled Clean Version of Amended Specification Paragraphs. The specific changes incorporated in the substitute paragraphs are shown in the following marked-up versions of the original paragraphs:

On page 2, paragraph 5, please make the following changes:

As shown in Figure 2c, in the oxidizing process, oxygen is diffused into the gate [520] 220 from the side to form the first side oxide region 236 as shown by arrows 244. Oxygen is also diffused through the gate oxide 210 and into the bottom of the gate [520] 220 to form the first bottom oxide region 238 as shown by arrow 246.

**IN THE CLAIMS**

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect amendment of previously pending claims 1, 3, 4, 7, 9, 10, 14, 16, 17, 21, 23, 24, 27, 28, 30, 31, 35, 37, 38, 41, 42, 44, 45 and 54. The specific amendments to individual claims are detailed in the following marked up set of claims.

1. (Amended) A method of reducing a channel length in a transistor, comprising:  
forming a gate dielectric layer on a semiconductor substrate;  
coupling a barrier layer to the gate dielectric layer, wherein the barrier layer